

12

# EUROPEAN PATENT APPLICATION

21 Application number: 84306470.0

51 Int. Cl.<sup>4</sup>: A 41 B 9/12

22 Date of filing: 21.09.84

30 Priority: 21.09.83 CA 437210

43 Date of publication of application:  
27.03.85 Bulletin 85/13

64 Designated Contracting States:  
BE DE FR GB IT NL SE

71 Applicant: Bouwhuis, Harry E.  
94 Wellington Street  
Bowmanville Ontario(US)

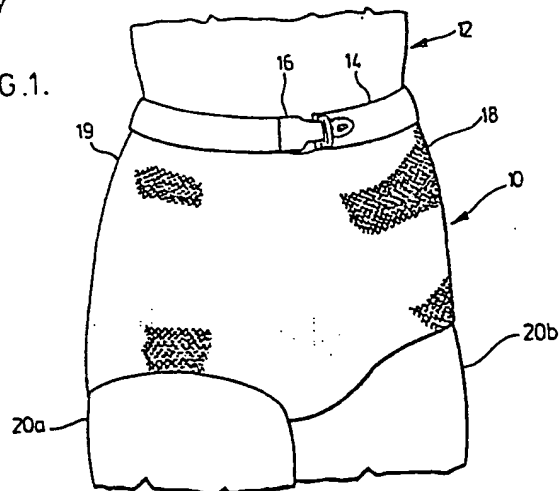
72 Inventor: Bouwhuis, Harry E.  
94 Wellington Street  
Bowmanville Ontario(US)

74 Representative: Rooney, Paul Blaise et al,  
D.Young & Co. 10 Staple Inn  
London WC1V 7RD(GB)

64 A protective undergarment.

57 The undergarment is in the form of pants (18) composed preferably of chain mail and having a belt (14) which may be locked about a wearer's waist. The pants (18) cannot thereafter be removed from the wearer's body in the absence of a key without the use of tools normally not carried by persons intent upon a sexual attack.

FIG. 1.



A Protective Undergarment

This invention relates to protective undergarments and more particularly to protective pants having locking means for preventing their removal unless desired by the wearer of the pants.

Women have resorted to a variety of different methods to protect themselves from sexual assault. Some women carry weapons such as pistols and knives, some carry aerosol dispensers containing chemicals such as tear gas, mace or the like and some women make use of judo or karate to fend off attack. These methods however are usually not effective where the attack comes by surprise or where a woman is not able to keep her nerve when she becomes aware of an impending attack.

There is thus a need for protective pants which can be locked to a woman's body and which when so locked cannot readily be removed without tools which are not normally carried by a man intent upon a sexual attack. Such pants should accordingly foil such an attack whether or not the attack comes by surprise or whether or not the woman maintains her composure when she realises an attack is imminent.

According to the present invention there is provided a  
1 protective undergarment for the lower torso of a wearer  
characterised by comprising: pants shaped and dimensioned to  
extend from the waist to the thighs of a wearer and being relatively  
tight fitting to the thighs, a belt connected to the pants adjacent  
to the waist, with both pants and the said belt being composed of  
5 flexible material resistant to manual tearing and to severance  
by a knife or like sharp object; means for fastening the belt  
selectively tightly about the waist, with the belt when so maintained  
serving to prevent removal of the pants from the lower torso,  
and with the belt when disposed loosely about the waist allowing  
0 removal of the pants from the lower torso, and a lock integral  
with the fastening means for causing the fastening means operatively  
to maintain the belt tightly about the waist.

Such an undergarment may be worn in comfort by a woman and may be easily removed by her when she so desires. The pants may make direct contact with the skin or may be worn comfortably outside a conventional undergarment.

5 The invention will now be described in detail with reference, by way of example, to the accompanying drawing in which:

Figure 1 is a perspective view of a protective undergarment according to one embodiment of the invention as shown in conjunction with the lower torso of a wearer;

10 Figure 2 is an elevation of a buckle for securing the protective undergarment of Figure 1 to a wearer,

Figure 3 is a side view of the buckle of Figure 2 showing the manner in which its components are connected to one another, and Figure 4 is a side view of the buckle of Figures 2 and 3 showing its components in the same position as in Figure 2.

15 Like reference characters refer to like parts throughout the description of the drawing.

With reference to Figure 1 a protective undergarment of the invention, indicated generally by the numeral 10, is shown in conjunction with a lower torso, generally 12, of a wearer. The  
20 undergarment comprises a belt 14, means for fastening the belt about the wearer's waist in the form of a buckle 16 and pants 18. The pants extend from the wearer's waist 19 to the thighs 20a,b. As illustrated the pants are relatively tight fitting to the thighs and are held tightly to the waist by means of the belt 14.

25 The pants and belt are composed of flexible material which is resistant to manual tearing and to severance by a knife or a like sharp object. The pants may be composed of chain mail or tough but soft polymeric material. The belt may likewise be composed of tough, soft polymeric material or even chain mail. Whatever  
30 material is used, the pants and belt must both be capable of resisting cutting, tearing or any other damage by hand or by knife so that the pants cannot be removed by any such method.

With reference to Figure 2 the belt fastening means or buckle therein illustrated is composed of a tongue 22 and a retaining  
35 member 24 both of which being fastened to opposite ends 14a,b respectively of the belt. The tongue is provided with a base 25

and a catch 26.

The catch is movable from the position illustrated in Figures 3 and 4 in which its upper surface 26a diverges from the plane of base 25 to a position in which its upper surface is flush with the latter plane.

A spring or other resilient means (not illustrated) is disposed within the catch for maintaining it in the position illustrated in Figures 3 and 4 but the catch may be moved to a position flush with base 25 by forcing it manually downward or by moving it in the direction of arrow 28 in Figure 3 against the retaining member.

A lock (not illustrated) is accommodated within the catch. The lock is of conventional construction and is operated by means of a key which passes through keyhole 30. By means of the lock, the catch can be fixed in the position inclined from the plane of base 25 as illustrated in Figure 4.

The retaining member is composed of a base 32 and a U-shaped element 34. The base and element define an opening 36 through which the tongue may be passed or inserted.

As illustrated in Figure 4 the U-shaped element 34 of the retaining member contacts the rear edge 38 of the catch when the tongue has been passed through opening 36. In such position the tongue cannot be removed unless pressure, opposed to the bias of the spring within the catch, is applied to the catch to cause its upper surface to move to a position in which is flush with the plane of base 25. Should the catch be locked in the position illustrated in Figure 4 of course the catch cannot be moved as indicated.

In operation the protective undergarment of the invention is donned by a woman in the usual manner either directly in contact with her skin or more preferably outside a conventional undergarment. The belt of the protective garment is then tightened about her waist by interconnection of the tongue and retaining member of the buckle. The latter two components are then locked together by means of a key. The undergarment cannot thereafter be removed in the absence of the key without the use of tools normally not carried

by persons intent upon a sexual attack.

A woman who wears the undergarment will of course ensure that the key is not readily available when she desires the protection of the pants. She might conceal the key in her purse or to her body or she might keep a key at her place of work and at her home but not about her person.

CLAIMS

1. A protective undergarment for the lower torso of a wearer characterised by comprising: pants (18) shaped and dimensioned to extend from the waist to the thighs of a wearer and being relatively tight fitting to the thighs, a belt (14) connected to the pants (18) adjacent to the waist, with both the pants (18) and the belt (14) being composed of flexible material resistant to manual tearing and to severance by a knife or like sharp object; means (22,24) for fastening the belt (14) selectively tightly about the waist, with the belt (14) when so maintained serving to prevent removal of the pants (18) from the lower torso, and with the belt (14) when disposed loosely about the waist allowing removal of the pants (18) from the lower torso, and a lock integral with the fastening means (22,24) for causing the fastening means operatively to maintain the belt (14) tightly about the waist.
2. An undergarment as claimed in claim 1, wherein the fastening means (22,24) is composed of a tongue (22) fastened to one end of (14a) of the belt (14) and a retaining member (24) fastened adjacent to the other end (14b) of the belt (14), the retaining member (24) having an opening (36) into which the tongue (22) may be inserted, and the lock being connected to the tongue (22) and preventing removal of the tongue when inserted into the opening (36).
3. An undergarment as claimed in claim 1, wherein the fastening means (22,24) is composed of a tongue (22) fastened to one end of (14a) of the belt (14) and having a catch (26) biased by resilient means towards a locking position, and a retaining member (24) having an opening (36) and fastened adjacent to the other end (14b) of the belt (14), the tongue (22) being connectible to the retaining member (24) by the application of pressure to the catch (26) opposed to the bias of the resilient means to displace the catch (26) into an unlocking position, then inserting the tongue (22) into the opening (36) and thereafter releasing said pressure whereby the catch (26) maintains the tongue (22) within

the opening (36) and prevents removal thereof, and the lock being connectible to the tongue (22) and operative to maintain the catch (26) in the locking position.

- 5 4. An undergarment as claimed in any one of claims 1 to 3, wherein the pants (18) are composed of chain mail.

FIG. 1.

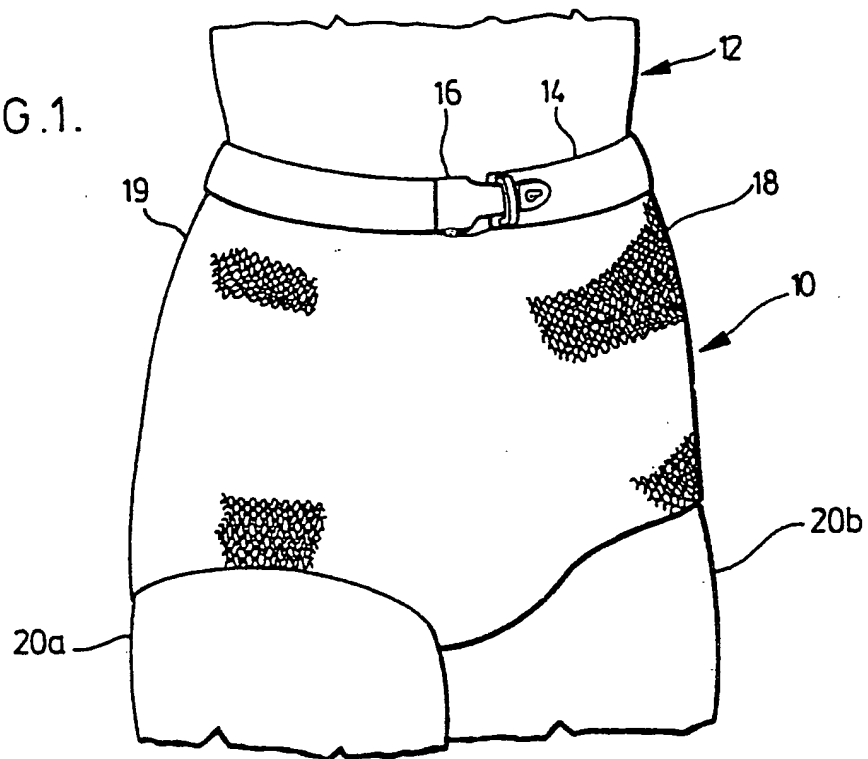


FIG. 2.

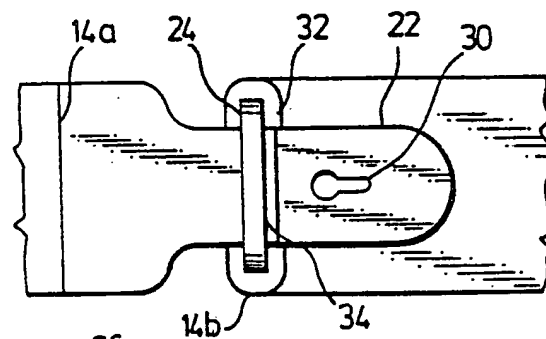


FIG. 3.

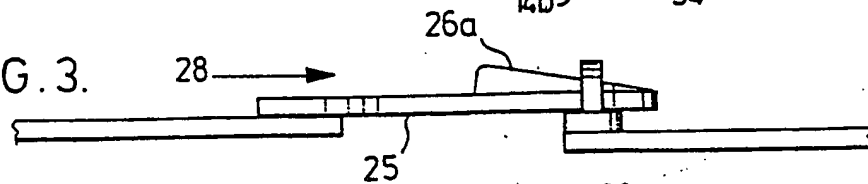


FIG. 4.

